GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:2444
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DRISHTI SYSTEM
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Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the National Aerospace Laboratories of CSIR have signed any partnership agreement with the India Meteorological Department for production of Drishti System jointly;

(b) if so, the details thereof and the salient features of the system;

(c) the names of the airports in which IMD provides aeronautical meteorological services and where the said system is proposed to be installed; and

(d) the extent to which foreign exchange is likely to be saved by installation of indigenous technology?

Answer

MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF EARTH SCIENCES (Dr. HARSH VARDHAN)

(a) Yes, Madam.

(b) CSIR- National Aerospace Laboratories (CSIR-NAL), Bengaluru has signed an agreement with the Indian Meteorological Department (IMD) on 20th May, 2014, for installing Drishti at 66 Airports. The salient features of the system are provided in annexure-I.

(c) IMD provides meteorological services to all the Civilian Airports of the country. Presently Drishti is working at: Indira Gandhi International Airport (IGI), New Delhi (ten systems); NSCBI Airport, Kolkata (one system); and Lucknow Airport (one system). The list of airports in which the said systems are pro- posed to be installed is provided at annexure-II.

(d) The indigenously developed Drishti system is 50% cheaper than the imported system.

Annexure-I

CSIR-NAL has developed a state of the art transmissometer system (DRISHTI). This is based on field programmable gate array (FPGA) embedded electronic hardware with web enabled data acquisition software in Lab View environment. The system facilitates automated measurement of RVR (50-2000meters) and MOR (10-10000meters). Drishti is capable of working for CAT- I, CAT- II and CAT- III A & B landing operations.

New features of DRISHTI
Transmitter: lamp with spectral characteristics similar to runway lights;
Receiver unit: with photo diode and suitable electronics. Photopically corrected to match the human eye response;
Background luminance (BLM):2 to 40000 cd/m2 covering the range of Night, twilight, normal day & bright day Measurement accuracy − 10%;

Software: Suitable window based software in Lab View environment;
Communication to Control Tower:
Radio Transmitting/Receiving: High gain Wi-Fi system operating on free band covering a range of 8 km; and

Landline communication: Ethernet extender covering a distance of 8 km.

Annexure-II

LIST OF 20 SITES FOR INSTALLATIONS OF DRISHTI SYSTEM

Airport Name	Runway No.	Category
Amritsar	RWY #16	CAT-IIIB
Lucknow	RWY #27	CAT-IIIB
Lucknow	RWY MID (27-09)	CAT-IIIB
Lucknow	RWY #09	CAT-II/IIIB

Kolkata RWY 01R CAT-II/IIIB
Kolkata MID CAT-II/IIIB
Kolkata END CAT-II/IIIB
Ahmedabad RWY #23 CAT-I/IIIB
Bengaluru RWY # MID (27-09) CAT-I/IIIB
Hyderabad RWY MID (27-09) CAT-I/IIIB
Varanasi RWY #27 CAT-I
Dehradun RWY #08 CAT-I
Patna RWY #25 CAT-I
Cochin RWY #27 CAT-I
Guwahati RWY #2 CAT-I
IGI, Delhi 5 LOCATIONS CAT-IIIB